

**ABSTRACT**

The invention relates to gudgeon pin bushes which find application in highly-stressed engines, with the problem of a tendency to pit, in particular in the middle regions (with relation to the radial axis of the bush), on starting the motor. According to the invention, said problem can be avoided whereby the friction surfaces of a gudgeon pin bush, at least in the high loading region, have the following parameters measured over the bush cross-section in the axial direction: the support percentage is a minimum of 99.0 % to a depth of at most 1.800 m, the depth of the roughness core profile is at most 0.30 m, the proportion of the material Mr1 of the roughness core profile is at most 8 %. Said gudgeon pin bush can be obtained by means of a finishing for the bearing surface of the gudgeon pin bush using a surface machining method.